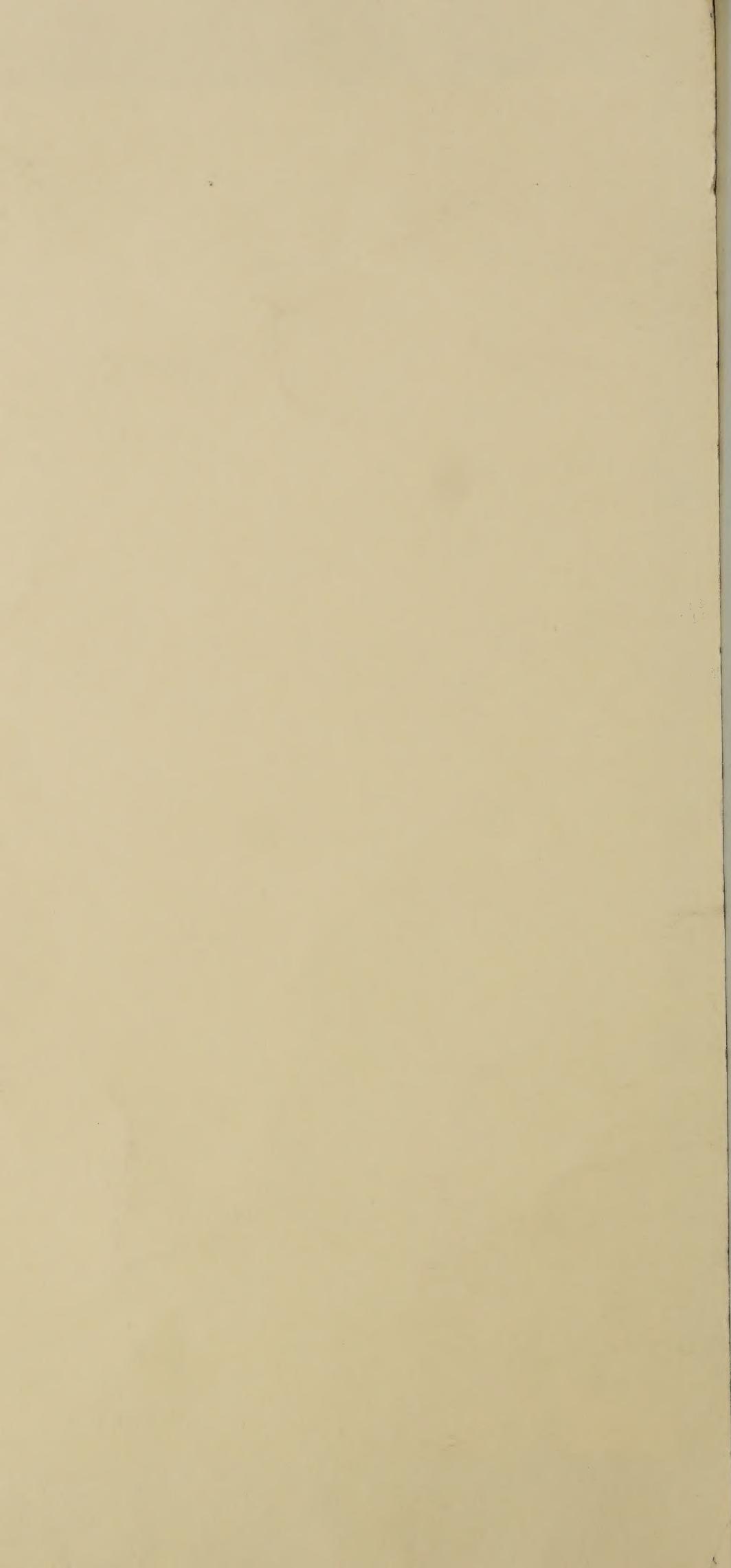


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United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Seed and Plant Introduction and Distribution,

WASHINGTON, D. C.

CRIMSON CLOVER (*Trifolium incarnatum*).

Crimson clover is also known as scarlet clover, German clover, French clover, Italian clover, Egyptian clover, and carnation clover. It is a vigorous-growing annual leguminous plant, somewhat resembling red clover, but slightly more upright; has a darker green color, and the leaves and stems are more hairy. Its flowers are scarlet or crimson in color and are borne in slightly elongated or cone-shaped heads from 1 to 2 inches in length. Crimson clover is a native of southern Europe and has long been cultivated as a green-manure and forage crop in the southern and central section of that continent. The average height is about 18 inches, but under very favorable conditions it often makes a growth of from 2 to 3 feet. Crimson clover requires a rather mild, moist climate and can be grown more or less successfully in the States south of a line through northern New Jersey, east Tennessee, and Texas. It succeeds best in New Jersey, Delaware, Maryland, Virginia, and North Carolina. Outside of this section the successful production of this plant is confined to local areas and can not be depended upon year after year. It will not withstand prolonged summer drought nor severely cold northern winters.

In Europe four or five varieties are recognized agriculturally, distinguished chiefly by the time required for the plants to mature and by the color of the flowers. In this country practically no attention has been paid to the varieties, and but one sort is generally recognized by seedsmen.

Soils.—Although crimson clover is grown principally for increasing the fertility of the soil, it will not as a rule succeed as well as cowpeas on very poor land. Well-drained loam and sandy soils are best adapted to its growth. On stiff, heavy clay soils the growth is usually too slow and small to be satisfactory for an early green-manure crop. Slough, swampy, and wet soggy soils are not suited to its growth.

Uses and value.—Crimson clover is preeminently a catch or cover crop, particularly well suited to orchards and market gardens, where it is necessary to increase the fertility or to prevent washing and leaching of the soil during the winter months. It also lends itself quite readily for green manuring and other purposes in general farming. For this purpose it can be made to follow any small-grain crop, and since its growth is made in autumn, winter, and early spring it can be plowed under in time for most field and garden crops that may be planted in late spring and summer. A good crop yields by the last of May from 6,000 to 7,000 pounds to the acre of dry matter in tops and roots 12 inches below the surface of the ground. This is about equal to 10 tons of city stable manure.

Crimson clover may be pastured in autumn and early spring, either when sown alone or in mixtures with small winter grain or rape. It is relished by all kinds of stock, but care must be exercised when pasturing with sheep or cattle, as there is considerable danger from bloat or hoven. For this reason, when grazing is desired crimson clover should be seeded with a small winter grain, such as wheat or rye, which lessens this danger considerably. Owing to its short period of growth it is not sown in mixtures for permanent pasture.

In dairy sections where this clover succeeds it is used to a considerable extent for soiling. It is ready for use two or three weeks before red clover and at a time when there are few other forage crops available. Small winter grains such as wheat and rye are sometimes sown with the clover when used for this purpose. Well-cured crimson-clover hay is relished by all kinds of stock and is, if anything, a little superior to that of red clover, having about the same composition, with a slightly higher degree of digestibility. Under ordinary conditions the yield is from 1½ to 3 tons of hay to the acre. For hay the clover should be cut as soon as it starts to bloom. After this period the hairs, principally those on the stems of the flower heads and calyces of the separate flowers, become stiff and barbed and are likely to form "hair balls" in the stomachs and intestines of animals, which act as plugs or otherwise interfere with the vital functions, sometimes causing death. This is particularly true of horses. In plants just beginning to bloom the hairs are still soft and flexible.

Sowing.—Throughout the middle Atlantic States the seeding may be done from July 15 to September 15, and even later in the Gulf States. As a rule the best results are obtained by sowing the seed in July and August. It is important that considerable growth be made before winter. The seed should be sown at the rate of from 15 to 20 pounds to the acre.

In some localities it is the common practice to sow crimson clover in corn at the last cultivation. Where it follows garden crops it is usually best to give the land a light surface working with a disk or other shallow-working tool before sowing the seed. When the clover is to follow a small-grain crop the land should be plowed and allowed to become well settled before seeding. The seed may be drilled or sown broadcast and given a light covering.

Seed.—The seed of crimson clover is larger than that of red clover, perfectly oval in shape, and when fresh has a bright reddish yellow color with a high polish. As the seed gets older the polish is gradually lost and the color changes to a dull reddish brown. Germination deteriorates rapidly with age, and old seed should be avoided.

When harvested for seed great care should be taken to cut as soon as the seed is ripe; otherwise the loss from shattering is likely to be great. Because of this it is best to cut the crop when it is a little damp. The most satisfactory method of harvesting is with a self-rake reaper, the plant being dropped off in bunches of suitable size to dry and handle easily. Some farmers cut with a mower, rake while damp, and cock to allow it to dry. This at best shatters considerable seed.

The thrashing should be done as soon as the crop is dry enough. A few days of damp, muggy weather will often cause the seed to sprout, and for this reason many seed growers arrange it so that the seed is cut one day and thrashed the second or third day following. The yield under ordinary conditions is from 4 to 10 bushels to the acre.

